

Date: Friday, 9/14/2007 2:01:55 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : X-TUBE MATERIAL
Job Number : 34687	
Estimate Number : 12127	
P.O. Number :	Part Number : D6005180
This Issue : 9/14/2007 S.O. No. :	Drawing Number : D6005 REV A
Prsht Rev. : NC	Project Number : N/A
First Issue : / / Type : LANDING GEAR	Drawing Revision : A
Previous Run : 25673	Material :
Written By :	Due Date : 1/30/2008 Qty: 9 Um: Each
Checked & Approved By : <u>10/07/09.17</u>	
Comment : Est Rev:C 04.06.15 Added tolerance to Step 2 KJ/JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: 4611

C 207/09/18 (9)

- a) Extrude as per Dwg D6005 length = 180" (Ref. D6005-180)
- b) Material: 7075-T6/T6511 (WW-T-700/7 or QQ-A-225/9 or QQ-A-200/11)) Seamless aluminum tube
- c) Minimum ultimate tensile strength = 77ksi
- d) Minimum tensile yield strength = 66ksi
- e) Material certification required

2.0	D6005180P	Crosstube material
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 9.0000 Each(s)
 Crosstube extrusion

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1
 Receive & Inspect For Transit Damage
 Ensure material certification is attached

C 8/3/11 (10)

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK
 Ensure Material certification comply to Dwg D6005

S 08/03/11 (10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: D Date: 09/03/13
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Friday, 9/14/2007 2:01:55 PM
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: X-TUBE MATERIAL

Job Number: 34687

Part Number: D6005180

Job Number:



Seq. #:

Machine Or Operation:

Description:

5.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

6.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: LG

8.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



mi 2008/3/13 (10)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

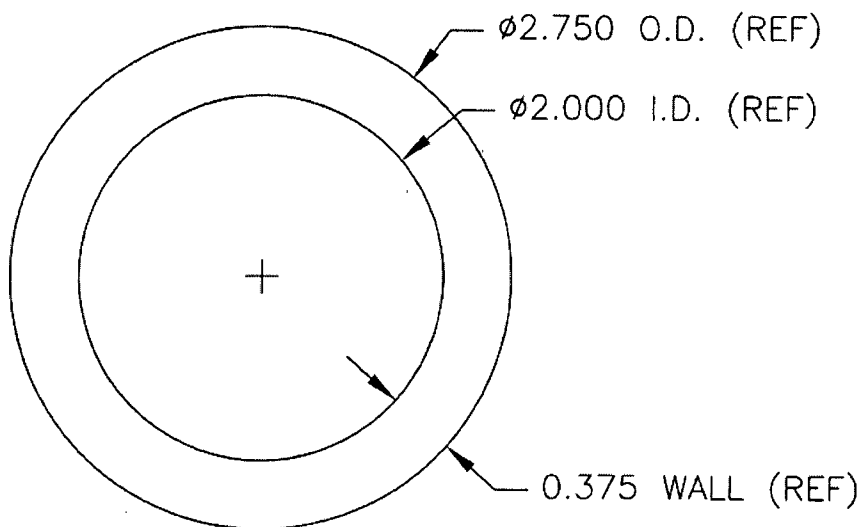
NOTE: Date & initial all entries



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6005	REV. A SHEET 1 OF 1
DATE 00.11.17		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	00.11.17	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24 *[Signature]*



NOTES

- 1) D6005-XXX CROSSTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 128" LONG TUBE: D6005-128

- 2) MATERIAL: 2.750 OD x 0.375 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi
MINIMUM YIELD TENSILE STRENGTH = 66 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.006 MEAN (± 0.012 INCLUDING OVALITY)
WALL: ± 0.015 MEAN (± 0.038 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.125/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

SHOP COPY
RETURN TO
ENGINEERING
CONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 34687

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www.alunnatubes.com

Approved Certificate According to EN10204:2004 3.1.

For all Customer and 3rd Party approvals
visit www.alunnatubes.com

No. C/151907/1

Customer

DART AEROSPACE LIMITED
1270 ABERDEEN STREET
HAWKESBURY
ONTARIO
CANADA

K6A 1K7

Your Order No

PO00004611

Your Part No

D6005-180P ✓

Our Order No

94945/4

Packing Note No

151907

Date

31/01/08

Packages

1 CASE

Other Tests Passed

Size / Description

SEAMLESS DRAWN TUBE 2.750 INS O/D .375 INS W/T 7075 Alloy
Length - 180.00 inches

Specification

7075 T6
WW-T-700/7B

No of Pieces	Nett Weight Lbs		Tensile Test					Chemical Analysis %													H cc/ 100 gm
			Test No	0.2% Proof Stress KSI	Tensile Strength KSI	% Elongation 2in		Heat or Cast No	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Zr			Ti	
10	511		332983 LO	66.3	78.2	16		2N319	.08	.27	1.40	.04	2.39	.22	.01	5.73	.01			.02	.08

Remarks

ALLOY MELTED IN THE UNITED KINGDOM

Authorised Inspection Representative

Mr Terry Layton - For and on behalf of Alunna Tu

In accordance with the RoHS directive, ALUnna Tubes certify that the above mentioned product does not contain banned or relevant substances.

Mercury Free.

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V.A.T. Registration No. GB 923 7112 44

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